

**WLPCS**  
**Geometry**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Per.: \_\_\_\_\_

**Homework 7.4/7.5: Equation of a Circle**

1–6: Match the equation of a circle with its description.

1.  $(x + 2)^2 + (y - 3)^2 = 4$

2.  $(x - 2)^2 + (y - 5)^2 = 4$

3.  $(x + 3)^2 + (y - 5)^2 = 16$

4.  $(x + 2)^2 + (y + 3)^2 = 4$

5.  $(x + 3)^2 + (y + 5)^2 = 16$

6.  $(x - 2)^2 + (y + 5)^2 = 4$

A. center  $(-3, 5)$ , radius = 4

B. center  $(-2, -3)$ , radius = 2

C. center  $(-2, 3)$ , radius = 2

D. center  $(2, -5)$ , radius = 2

E. center  $(-3, -5)$ , radius = 4

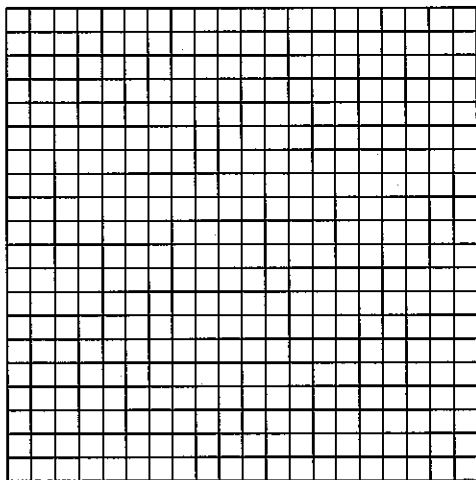
F. center  $(2, 5)$ , radius = 2

7. Give the center and the radius of the circle whose equation is  $(x - 3)^2 + (y + 5)^2 = 36$ .

8. Write the standard equation of a circle with center  $(-3, 6)$  and radius 7.

9. Graph the equation

$$(x - 3)^2 + (y + 4)^2 = 16$$



## FEELING BRAVE?

### Completing the Square Worksheet

Name \_\_\_\_\_

Directions: Complete the square in each equation below. Write an equation in standard form for each circle. Then, give its center and its radius.

1.)  $x^2 + y^2 - 6y = -5$

2.)  $x^2 - 8x + y^2 + 2y = 8$

$$x^2 + y^2 - 6y + 9 = -5 + 9$$

$$x^2 + (y - 3)^2 = 4$$

center (0, 3) r: 2

3.)  $x^2 + y^2 + 4y = 12$

4.)  $x^2 - 2x + y^2 = 80$

5.)  $x^2 + 8x + y^2 - 2y = 64$

6.)  $x^2 - 24x + y^2 + 6y = -137$

7.)  $x^2 + 14x + y^2 - 12y = -4$

8.)  $x^2 + 2x + y^2 - 24y = -120$

9.)  $x^2 + 2x + y^2 - 10y = 55$

10.)  $x^2 - 8x + y^2 - 32y = -263$

11.) **MULTIPLE CHOICE** Which point does not lie on the circle described by the equation  $(x + 2)^2 + (y - 4)^2 = 25$ ? **SHOW WORK!!**

- A. (-2, -1)      B. (0, 5)      C. (3, 4)      D. (1, 8)

**MORE ON THE BACK!!!**